

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027804**Date Inspected:** 21-Jun-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job site**CWI Name:** As Noted Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG/Tower**Summary of Items Observed:**

Quality Assurance Inspector (QA) Rodney Patterson was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

The QA inspector observed at random intervals, ABF/JV qualified welder Richard Garcia # 5892 performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1162-4. The welding observed was for the HPS-485 longitudinal stiffener wing plate attachment welds located between panel points 124.5 and 125 at LS3. The weld is a Partial Penetration Tee joint. The weld surface and surrounding area was brought to temperature by the use of induction heaters and the preheat temperature was confirmed ABF personnel prior to welding. The Quality Control (QC) inspector Salvador Merino was observed monitoring the welding parameters. The cover pass of the weld was observed to be completed prior to the end of the QA inspectors shift.

The QA inspector observed ABF/JV welding personnel performing carbon arc cutting of the lifting lug assembly in order to remove the remaining assembly from the longitudinal diaphragm that was previously utilized to lift the OBG to the temporary structure. The lifting lugs were removed to facilitate the fit up of additional stiffeners to the longitudinal diaphragm at a later date as seen in the attached photograph.

This QA observed ABF/JV QC inspector Salvador Merino performing magnetic particle testing (MT) of repair excavations after grinding to a bright finish for the weld designated as 13E-E122.2. The weld was previously rejected with ultrasonic testing (UT) by ABF QC personnel. The weld is a Complete Joint Penetration (CJP) butt

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joint of the OBG deck drop-in. No Indications were found present at the time of inspection.

The ABF/JV qualified welder Eddie Brown #9331 was observed later in the shift performing Shielded Metal Arc Welding (SMAW) in the 4G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1004. The welding observed was for the repair of the deck panel drop-in splice weld as previously mentioned. The repair surface and surrounding area was brought to temperature by the use of induction heaters placed on the topside of the deck. The preheat temperature was confirmed ABF personnel prior to welding. The weld is located between panel points 122~122.5 and is designated as 13E-122.2. The weld repairs observed were completed at the following locations in the above mentioned weld prior to the end of the QA inspectors shift.

Y=4750mm, Depth 10mm, Length=85mm
Y=4590mm, Depth 10mm, Length=85mm
Y=3040mm, Depth 7mm, Length=120mm
Y=2315mm, Depth 11mm, Length=60mm
Y=1800mm, Depth 9mm, Length=30mm
Y=1750mm, Depth 9mm, Length=40mm
Y=1485mm, Depth 8mm, Length=80mm
Y=1185mm, Depth 8mm, Length=60mm

The QA inspector observed at random intervals, ABF/JV qualified welder Steve Davis #7889 performing Shielded Metal Arc Welding (SMAW) in the 2G and 3G position utilizing the Caltrans approved Welding Procedure Specification ABF-WPS-D1.5-1080-R1. The weld is a Complete Joint Penetration tee joint of the tie bracket between the horizontal and vertical floor beam flange at panel point 124.5. The weld surface and surrounding area was brought to temperature by the use of a gas torch and the preheat temperature was confirmed ABF personnel prior to welding. The Quality Control (QC) inspector Salvador Merino was observed monitoring the welding parameters at the start of welding. The welding from face "A" was observed to be completed prior to the end of the QA inspectors shift and will require back gouging of the root at a later date.

This QA spent a portion of the shift reviewing and documenting the status and completion of various production welding tracking logs for lift 13E/14E drop-in deck work currently in-process. The QA recorded the information on the OBG tracking log.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

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Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Patterson,Rodney

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer